

UE Human computer interaction



Level
Baccalaureate
+4



ECTS
3 credits



Component
UFR IM2AG
(informatique,
mathématiques
et
mathématiques
appliquées)



Semester
Printemps

- > **Teaching language(s):** English
- > **Teaching method:** In person
- > **Teaching type:** Lectures
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** GBX8MO05

Presentation

Description

Target skills :

The goal is to present the core principles of human-centered approaches for analyzing, designing, implementing and evaluating interactive systems. At the end, students must be familiar with utility (good coverage of the needs) and usability (good quality of service), the two key properties in Human-Computer Interaction for both criticizing and developing high quality User Interfaces (UI). The principles are applied to graphical UIs, including web sites.

Students who attend this course should be able to design, implement and evaluate interactive systems following a user centered approach.

Program summary :

The course presents the key steps and models in user centered design. Then it focuses on ergonomic criteria for sustaining both the design and evaluation of user interfaces.

- Analysis: cognitive models, motivations for the system, models of the user, environment, and activity
- Design: tasks, concepts and platform models, ergonomic criteria, abstract and concrete user interfaces, specifications (User Action Notation)
- Implementation: software architecture models, tools (overview of web programming techniques)
- Evaluation: predictive and experimental, qualitative and quantitative approaches.

The course includes 18h of formal lectures and 18h of project. The project lasts during the whole semester. Students have to analyse a need, design and prototype an interactive system, and evaluate it. The theme is chosen by the students. They have to produce two documents (analysis and design), a prototype, and to test it through user experiments.

Course parts

TD	Tutorials (TD)	21h
CM	Lectures (CM)	12h

Period : Semester 8

Useful info

Contacts

Program director

François Berard

✉ françois.berard@univ-grenoble-alpes.fr

Program director

Gaëlle Calvary Paen

✉ Gaëlle.Calvary@univ-grenoble-alpes.fr

Place

> [Grenoble](#)

Campus

> [Grenoble - University campus](#)